PROTOTYPING

✖

*Making Questions and
Assumptions Tangible*

PROTOTYPING IS A MINDSET

CUSTOMER ⁄ **EXPERIENCE** ⁄ **BUSINESS**

Each and every question that your venture needs to answer can be ***prototyped*** and presented to people to see their reaction and get feedback.

PROTOTYPING HELPS YOU EXPRESS YOUR VISION

A prototype is essentially a question.

It lowers the risk of exploring, asks the questions you forgot to ask, and makes ideas tangible so you can engage with them.

WHY PROTOTYPE?

1.
*BUILD
TO THINK*

2.
*FAIL EARLY
TO SUCCEED
SOONER*

Maximize impact while minimizing sunk time and cost

Challenge your assumptions

Avoid premature emotional attachment

Make ideas tangible so others can build on them

Advance your design process through milestones

Express concepts to avoid mis-communicating your intent

Answer questions by getting evidence and feedback

PROTOTYPING STARTS BY SURFACING QUESTIONS & ASSUMPTIONS IN YOUR VENTURE

We frame our assumptions and hunches as **QUESTIONS**, then design **PROTOTYPES** we can test with real people to answer those questions and build **EVIDENCE**.

THE RIGHT QUESTION DRIVES A SOLID PROTOTYPE.

1

QUESTION

What question are you trying to answer or assumption are you trying to prove?

QUESTION

1

*Your question could be a **hunch** or an **assumption**, depending on how confident you are.*

HOW DO YOU ASK THE RIGHT QUESTIONS?

POSSIBILITIES FOR SURFACING QUESTIONS AND ASSUMPTIONS:

Hunches you want to confirm with people
(Ex: a feature you think they want, a need you anticipate they have)

From the Venture Story Madlib Worksheet, see where you have less evidence or confidence about your user, the experience you're creating, or your business model
(Ex: something you know from your own experience but want to confirm other people go through as well)

Identify assumptions you've made that have to be true for your venture to work and phrase them as questions
(Ex: if a technology works, if you can hire the right talent)

EXAMPLES:

How will people find out about my business?

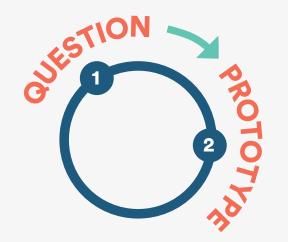*Will people think the promise I'm making is compelling and valuable?*

Do people want my product enough to pay $X?

THE RIGHT PROTOTYPE DRIVES SOLID FEEDBACK AND EVIDENCE FROM PEOPLE.

1

QUESTION

What question are you trying to answer or assumption are you trying to prove?

QUESTION

PROTOTYPE

2

PROTOTYPE

What can we make and show to people in order to test this?

HOW DO YOU KNOW WHAT TO PROTOTYPE? AND HOW?

Format: Should you make something physical or digital? Role play a scenario? In what context should people experience the prototype?

Feedback: Whose opinions do you want? Where can you find them, and how will you present your prototypes to them to get the evidence and feedback you want?

Resolution: What's the minimum viable prototype you can make to answer your question? Invest just enough time to communicate your idea and get feedback from people.

Can a low-resolution sketch or paper prototype get the idea across? Or do you need a clickable, higher-resolution experience to see what kinds of interactions people want in a particular feature?

YOU'LL OFTEN DO RAPID ITERATIONS OF PROTOTYPES
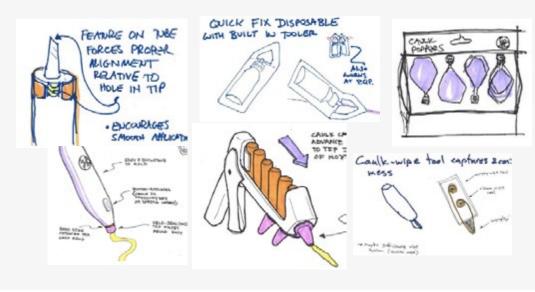
to address the same question.

QUESTION

PROTOTYPES - *rapid cycles happen in minutes, hours, days (vs. weeks)*

How can we allow consumers to easily apply small amounts of caulk?

We started with *sketches of early concepts* (below, left) so we could get feedback on some directions and imagine what the experience could be.

Then, taking feedback into consideration, we developed a second round of *low-fidelity, physical protoytypes* (below, right) that could be shown to users for deeper feedback.

THE RIGHT EVIDENCE ANSWERS YOUR CURRENT QUESTION

1

QUESTION

What question are you trying to answer or assumption are you trying to prove?

QUESTION

1

2

PROTOTYPE

3

EVIDENCE

2

PROTOTYPE

What can we make and show to people in order to test this?

3

EVIDENCE

What will we measure or observe to answer our question?

THE RIGHT EVIDENCE ANSWERS YOUR CURRENT QUESTION

and fuels your next question so you can go through the cycle again.

1

QUESTION

What question are you trying to answer or assumption are you trying to prove?

3

EVIDENCE

What will we measure or observe to answer our question?

QUESTION

PROTOTYPE

EVIDENCE

2

PROTOTYPE

What can we make and show to people in order to test this?

HOW DO YOU KNOW WHAT TO MEASURE FOR EVIDENCE?

THINGS TO CONSIDER:

Behavior: What actions are measurable and observable? Are you getting quantitative or qualitative feedback? Think about things you can see, track, or count (even if only a few people are interacting with your prototype).

Feedback: What quotes and reactions do you want to capture from what people say? How can you dig deeper to understand why people have a particular reaction? Can they help you build on your prototype to make it better?

Implications: What can you do with this information? How will it impact your design going forward? What new questions are uncovered? Think about future rounds of prototypes, and how what you learned can factor into other parts of the venture.

THERE ARE MANY WAYS TO PROTOTYPE

at different points in time along your venture, and at different resolutions

OF IDEAS

SURFACE

Surface questions & assumptions with *low-resolution prototypes*

EVALUATE

Choose among and across options using *medium-res prototypes*

VALIDATE

Test the mechanics of an option using *high-res prototyping*

TIME

EXAMPLES:
- Sketches
- Wireframes & mock-ups
- Role playing
- Hacking existing products together

EXAMPLES:
- In-context survey
- Interactive prototype
- Incomplete website
- Branded working prototypes
- Ads & splash pages

EXAMPLES:
- Retail kiosk or pop-up
- Alpha site
- In-context, live experiences

Prototyping at different points in time and at different resolutions

 # OF IDEAS

QUESTION
What are athletes' pain points around post-workout injury treatment?
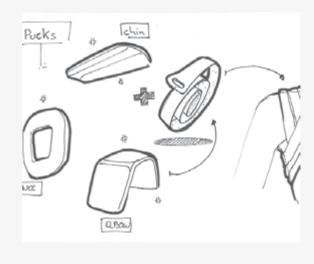
QUESTION
What are the key features people would want in an ice wrap?

QUESTION
How should we talk about the value proposition on packaging?

PROTOTYPE

PROTOTYPE

PROTOTYPE

RECOVERY+
ICE & HEAT SYSTEM

+ MOVE WHILE ICING & HEATING
+ MANAGE PAIN
+ RECOVER FASTER

Wrap adjusts to most body parts.
ADJUSTABLE WRAP + ICE + HEAT
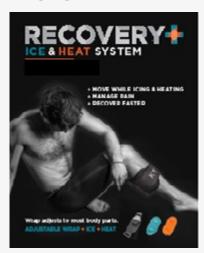
TIME

SURFACE
Surface questions & assumptions with *low-resolution prototypes*

EVALUATE
Choose among and across options using *medium-res prototypes*

VALIDATE
Test the mechanics of an option using *high-res prototyping*

PROTOTYPES THAT SURFACE ASSUMPTIONS AND CONSTRAINTS

(low-resolution prototypes)

ROUGH
just enough resolution to get an initial idea across

RAPID
takes minutes to produce

MANY
usually exploring various possibilities

EXAMPLES:

- Sketches
- Wireframes & mock-ups
- Role playing
- Hacking existing products together

QUESTION
Do people want a more portable, wallet-size medication list?

PROTOTYPE
We started with sketches, and printed out some options that we cut and taped together. We took these on user interviews to have users compare them to their current systems of keeping track of their list of medications.

EVIDENCE
In interviews, users overwhelmingly preferred a wallet-size list to their own system, and asked us questions / made suggestions that fueled the next round of prototypes.
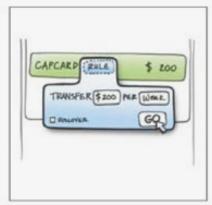
1. a Cap Card is offered in addition to a standard debit card

2. the limit and the automatic replenishment schedule can be adjusted online at any time

3. setting up a rule

4. the Cap Card balance is always available via mobile phone

QUESTION
What features and tools would millennials use for their bank accounts that would be different and valuable?

PROTOTYPE
We sketched some digital interactions and screens to test with users.

EVIDENCE
We talked to a number of different millenials in the target user group, and asked them what was most valuable and how they wanted interactions to feel.

VITALITY MAT

A comfortable surface for long periods of standing that eases joint strain and lowers muscle fatigue.

QUESTION
Would people find an early concept attractive - and if so, when and where would they use it?
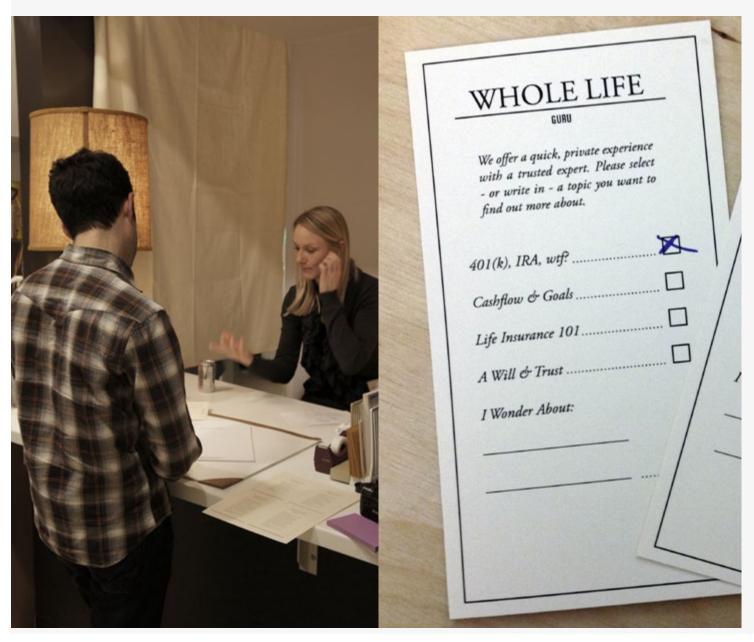
PROTOTYPE
We sketched and described the product at a high level, then showed it to them and facilitated a discussion around uses.

EVIDENCE
We tested with consumers and Physical Therapists and while they liked the general idea, most of them had complaints around size and portability, and couldn't see when and where to use it.

WHOLE LIFE

GURU

We offer a quick, private experience with a trusted expert. Please select - or write in - a topic you want to find out more about.

401(k), IRA, wtf? .... ☒

Cashflow & Goals .... ☐

Life Insurance 101 .... ☐

A Will & Trust .... ☐

I Wonder About:

_____

_____

QUESTION

Would people see value in a quick, 5-minute consult with a financial advisor?

PROTOTYPE

We prototyped a "guru booth" out of foamcore through a window that already existed in a wall, and provided the "guru" with a menu of topics he could help with. Then we had conversations with people.

EVIDENCE

By offering informal, quick 15 min chats with an advisor, people feel more comfortable and less intimidated to talk with a financial advisor. They realize the value of an advisor and understand how they could help them.

PROTOTYPES THAT EVALUATE OR HELP YOU CHOOSE BETWEEN OPTIONS

(medium-res prototypes)

IN-DEPTH
more thought through in terms of format and experience of the prototype

ITERATIONS
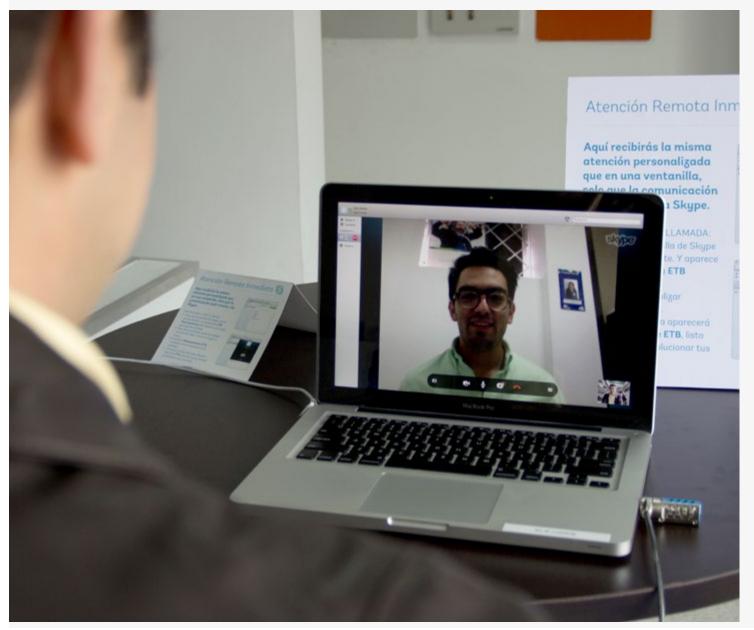incorporate feedback from earlier prototypes

FEWER
usually exploring a few more promising possibilities

EXAMPLES:
- In-context survey
- Interactive prototype
- Incomplete website
- Branded working prototypes
- Ads & splash pages

QUESTION
We wanted to know if customers who were used to in-person service would try new forms of service, including remote help.

PROTOTYPE
Open Skype line with a real customer service person available (without waiting in line).

EVIDENCE
At the beginning they weren't interested, and were mostly afraid of the screen. Culturally, these customers prefer one-on-one customer service.

QUESTION

As a full scale prototype we had different questions that we wanted to address:
1. Will customers try self-serve technology?
2. Will they engage in an interactive space? 3. Do they want to learn while they wait?

PROTOTYPE

Full-scale, high-resolution prototype in Bogotá, with real products, digital mock ups, scripts, roles and visuals.

EVIDENCE

Customers liked the space and were open to trying the digital kiosk. They indicated that they wanted more color in various aspects of the experience.

QUESTION

We wanted to know how much people are willing to pay for the service each month in addition to copays - $9, $19 or $29?
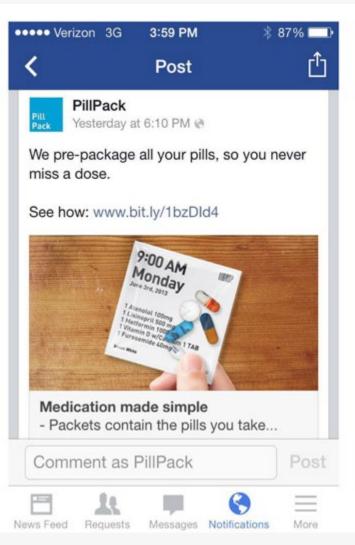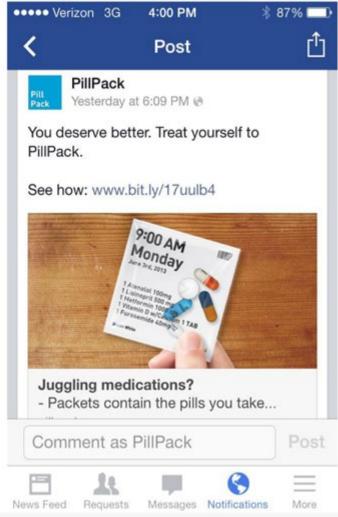
PROTOTYPE

Mall Kiosk testing a different price each day through conversation and brochure mock-ups.

EVIDENCE

$19 / month was the most believable price, and we learned a lot through our conversations to inform messaging for marketing (including the website).

QUESTION
We wanted to test what messages and value proposition elements were most resonant.

PROTOTYPE
Three rounds of Facebook sponsored stories, testing and optimizing for the best-performing ads.

EVIDENCE
Click-throughs (quantitative metrics) and comments users made below the ads (qualitative).

PROTOTYPES THAT VALIDATE OR TEST THE MECHANICS OF AN OPTION

(high-res prototypes)

POLISHED
enough to appear real in the marketplace

'IN THE WILD'
observing real potential customers and their behavior in real situations to remove research bias (vs. people knowing they are research subjects)
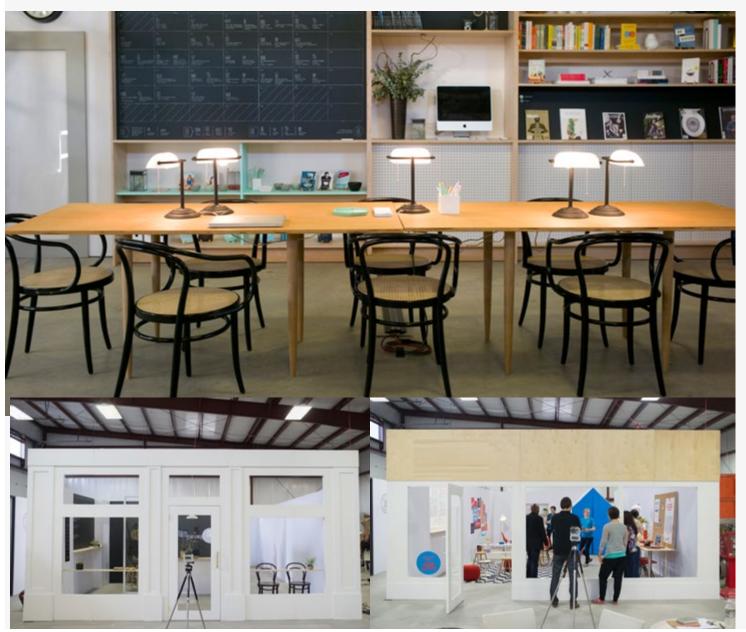
HIGHER QUALITY FEEDBACK
from seeing and measuring what people do (vs. what they say they would do); often more quantitative

EXAMPLES:
- Retail kiosk or pop-up
- Alpha site
- In-context, live experiences

QUESTION

We defined what the elements of our offering would be and wanted to learn what the right identity, tone, look and feel would be, and how it would influence how we delivered our services.

PROTOTYPE

3 full-scale space prototypes (with real furniture, signage and props) were constructed over the course of a week. Each of the 60+ users participated in two experiences.

EVIDENCE

The winning brand direction, which people felt could truly help them navigate through their financial experience, was preferred above and beyond two others.

8:00 AM
Monday
Nov 21

1 LISINOPRIL 20mg
1 ATORVASTATIN 20mg
1 ATENOLOL 50mg
1 CALCIUM 600mg
1 VITAMIN D 400iu

Medication Simplified.

PillPack is the full-service pharmacy that delivers a better experience.

WATCH DEMO ▶   Get Started

PHARMACY REINVENTED

Why choose PillPack as your pharmacy?

Never worry about your medications or refills again. Tell us a bit about yourself, and we'll take care of the rest.

YOUR MEDICATIONS ORGANIZED ALL IN ONE PLACE

Your medications come in individual packs organized by time, so you never have to refill a pillbox again.

DELIVERED TO YOUR DOOR

Your PillPacks and other medical devices are delivered automatically on a biweekly cycle right to your doorstep.

PROACTIVE REFILL MANAGEMENT

No matter when your prescriptions begin, our pharmacists will pro-actively refill them, so you never have to lift a finger.

PHARMACISTS READY TO HELP

Our service gives you direct access by phone and computer to your pharmacist, so your questions can always be answered.

QUESTION
In getting ready for launch / acquisition mode, we wondered if PillPack's website would communicate the offering in a way that compelled people to sign up for the service.

PROTOTYPE
Live website, evolved from many prototype iterations, with the essential pages (still missing some pages).

EVIDENCE
Through Google analytics and sign-up (or even inquiry) metrics, we could tell how visitors engaged with the content and how PillPack could make changes as they found what worked well and what could be improved.

QUESTION

We wanted to know if flavor would meet what people expected from packaging and branding elements, and also if the taste would be superior to competitive products. We also wanted to learn about what health claims and prices were attractive.

PROTOTYPE

We created tasting kiosks at food fairs and farmers' markets with real snacks in branded packaging.

EVIDENCE

People loved various aspects of the taste, and the team was able to get positive feedback on which messaging and brand elements worked.

EXPERIMENT DESIGN: YOUR PROTOTYPING TRAINING WHEELS

Experiments help us test & refine all the elements of our venture's design in a disciplined way.

→

We recommend using the Experiment Design Worksheet until the Question > Prototype > Evidence loop is second nature.

1
QUESTION

What do you want to know? What is the expected outcome for the underlying assumptions?

3
EVIDENCE

What will we measure or observe to validate or disprove the questions?

2
PROTOTYPE

What can we make and do to test this? (Assets, activities, etc.)
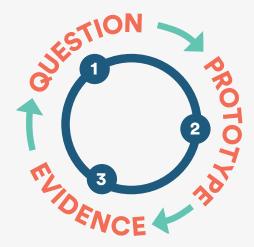
LET'S DO!

Now that you've learned more about prototyping, put it into action!

If you don't know what to prototype, revisit your Venture Story Madlib Worksheet and see where you have less evidence, are less confident, or still have questions. Surfacing the right questions is the first step - see below:

FOR QUESTIONS YOU STILL NEED TO ANSWER OR ASSUMPTIONS YOU NEED TO PROVE,

- What will you make / prototype?
- What evidence can you get?

WHAT'S NEXT?

DO

EXPERIMENT DESIGN

How can you prototype and test to answer specific questions?

PROTOTYPE STARTER

How can you start prototyping quickly and get tangible fast?

LEARN

CUSTOMER EXPERIENCE
CREATING VALUE AT EVERY TOUCHPOINT

What aspects of your venture's experience can you begin prototyping and designing?

LEARN

GENERATING IDEAS
EFFECTIVE BRAINSTORMING

What ideas from brainstorms can you make more tangible through prototyping?

LEARN

YOUR PROMISE
COMMUNICATING YOUR VENTURE'S VALUE

How can you prototype your promise to make sure your venture provides what people want?

Other Resources

PODCAST:

BUILDING PRODUCT, TALKING TO USERS, GROWING
FROM HOW TO START A STARTUP

Homejoy case study discussing metrics for evaluating ideas and prototypes.

VIDEO:

ELMO APP FOAMCORE PROTOTYPE
BY IDEO

Inspiration for low-fidelity digital prototyping.

PODCAST:

DOING THINGS THAT DON'T SCALE
FROM HOW TO START A STARTUP

DoorDash founder on launching to learn early in a venture.